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THE SWANNERY AT ABBOTSBURY.

BY THE REV. ALFRED CHARLES SMITH, M.A.

HAVING searched in vain through the pages of 'The Zoologist,' and other kindred journals of Natural History, for some account of this interesting colony,* I have thought it might be acceptable to ornithologists who have never had an opportunity of seeing it if I jotted down a few memoranda of a delightful day which I spent there on the 19th July last. For, in truth, being almost, if not quite unique in this country,—at all events being unrivalled in size,—the Swannery at Abbotsbury deserves the attention of naturalists, and of all who delight in a beautiful and novel sight. Moreover, the locality is one of remarkable interest in several other respects; and the archæologist, the ecclesiologist, and the geologist, as well as the ordinary tourist would, each in his special line, find himself well rewarded by a visit to it.

Let me begin, then, by saying something of Abbotsbury. It lies, at the distance of some eight miles, nearly due west of Weymouth; and a wild, hilly, but picturesque drive through lanes abounding in a great variety of botanical species, affords excellent views of the famous "Chesil Bank," which may be seen stretching

* Some observations on this Swannery will be found in 'The Zoologist' for 1865 (p. 9671). A typographical error, however, occurs in the foot-note on that page, where the compositor has put "two hundred" for "five hundred" Swans, an error easily accounted for, but one which should be corrected. For other sources of information the reader may be referred to Hutchins, 'History and Antiquities of the County of Dorset,' 1774 (which contains a Catalogue of Dorsetshire Birds by Dr. Pulteney), Mr. Mansell Pleydell's 'Ornithology and Conchology of the County of Dorset' (pp. 3 and 41), and an accurate and interesting article in 'Good Words' for March 1st, 1867, entitled "A Visit to the Swannery."—ED.

in its entire length (eleven miles) from Portland on the east to Abbotsbury on the west. This bird's-eye view of that very remarkable natural breakwater will alone well repay the tourist; for, looking down from the high ground which the road traverses, he will appreciate—as perhaps he will do from no less central spot—the immense size of that curious bar of shingle, averaging some one hundred and eighty yards in width, and some thirty or more in height, and separating the sea from the narrow estuary called the “Fleet.” It is the “Chesil Bank” which forms the snug and very retired resting-place of the Swans by day, and it is the “Fleet,” to which it gives rise, which is—except during the breeding season—their permanent home.

Arrived at the little village of Abbotsbury, which lies nestled in a valley, secluded from the sea, from which it is but one mile distant, the tourist cannot fail to have his eye attracted to the very picturesque ruins which abound on all sides. Ruined arches, ruined gateways, fragments of wall, and other detached masses of masonry, scattered around in the meadows, indicate where monastic buildings once stood. But conspicuous above all stands the grand old Barn, of enormous proportions,—the largest and most magnificent I have ever seen,—the size of which may perhaps be imagined when I mention that I counted, on the eastern side alone, no less than twenty-two massive stone buttresses, while the imposing doorways, the well-finished gables, and the niches for statues mark how complete in all its details, and how finished throughout, was this noble barn of ecclesiastical aspect.

There are, of course, plenty of legends and traditions in connection with the Abbey and the good fathers who once inhabited it; legends, too, of the ancient Chapel of St. Catherine, the ruins of which still crown the height which overhangs the Abbey, and to which we climbed for the bird's-eye view promised therefrom. Indeed the occasional peeps we enjoyed, during momentary intervals of sunshine, revealed most extensive views seawards, another aspect of the Chesil Bank from its western extremity, and a capital sight of the Fleet, dedicated to the Swans. During the greater part of our visit to St. Catherine's Chapel thick and heavy mists continued to sweep over and envelop us; and these, however refreshing on a hot day in July, obliterated the view completely. Nevertheless we had seen enough to impress us with respectful feelings towards the interesting old Abbey and the

holy fathers who inhabited it; so that when we descended to the main object of our visit, the domain of the Swans, we had a profound sense of the power and wealth of the lordly Abbot, quondam owner of the Swannery, or the "game of Swans," as it was technically termed; who moreover enjoyed the special privilege granted by the Crown, but very seldom granted to any subject, of seizing within a certain district all white Swans not marked with a recognized and licensed swan-mark cut in the upper mandible and registered by the royal swanherd. This, moreover, was at a period when Swans were generally considered royal property, and permission to own them at all was only given under special circumstances. So it seemed to fit in with all the surrounding circumstances to learn that the seven hundred or eight hundred Swans, which now compose the colony, are only the miserable remnant, in these degenerate days, of the thousands (some say eight thousand) which abounded here in former times.

Leaving the village behind us, and approaching the sea, we found the precincts of the Swannery shut out from profane view by a high fence, at the door of which stood the custodian of the Swans, in all respects the very *beau ideal* of what a swanherd should be—a fine specimen of the class of keeper, not indeed of the modern fine gentleman type, but of the race such as Bewick's vignettes depict—workman-like in appearance, dress and manner, one who knew his business and did it. He had been in the service of the family of Lord Ilchester, the present owner of the Swannery, above fifty years; and, as regards Swans, there is little doubt that this honest old man had more practical knowledge of their habits, their life-history, and their dispositions, than all the ornithologists and members of our learned Societies put together.

It was disappointing to be told on arriving that we were *too late* for the Swans, and that to see them in perfection we should have visited them in March instead of July! I suppose the dismay which this announcement caused must have shown itself in our faces, for the worthy keeper immediately reassured us, by saying that though the bulk of the colony had gone down the Fleet, or Back-water, with their young, still he could probably show us some two or three hundred. This was quite satisfactory, indeed beyond our most sanguine expectations; for had not our chief authority on

birds, the accurate Yarrell, recorded the figure eighty as the number we were led to expect? * So it was with a light heart we bade our conductor lead on. Pursuing a winding grassy path, which led through some reed and osier beds, and traversing an extensive secluded morass, in part high and dry, and in part slushy, our guide pointed out the now-vacated nests, which were scattered thickly enough over the surface; indeed almost every available spot seemed occupied with one. These nests were composed of straw and flags, about a barrowful to each nest, and as these are washed away by the winter tides, loads of straw are supplied in March, and shot down in heaps, from which the Swans, regularly returning to the same nesting-places every year, appropriate to themselves what they require, and arrange it to their own satisfaction. There had been over three hundred nests, he told us, last spring.

Then we came to the margin of the water, and in that part of the Fleet just opposite I counted over fifty Swans, while some few were basking in the sun and preening their feathers on the Chesil Bank on the other side, and many more might be discerned in the far distance, sailing or at rest in the Fleet towards the east. They would all come back, the keeper said, in the early morning, to drink at the freshwater stream which here falls into the Fleet; but they would not come to shore to revisit their nesting-places till next March. Indeed the old birds, he assured us, come but very little to shore at this season of the year. Occasionally a very few will land on the Chesil Bank for awhile; and sometimes others will take wing and make short flights around; but the main body lives, swims and rests upon the Fleet.

Asked whether they could stand very rough weather, the keeper said that the old birds took no harm, however intense the cold or rough the wind; but that the young birds were unable to endure much inclemency of weather. At such times the cygnets nestle under the wings of their parents, who thus protect them with the best shelter they can afford, but notwithstanding all their care the young Swans are often killed by severe storms and cutting winds and intense cold. The climate of the coast of Dorset would never indeed be very rigorous; but it is notorious that the Mute Swan is much less hardy than the Hooper, and while its congener braves the severity of northern winters, *Cygnus olor* retreats to the

* Yarrell's 'British Birds,' vol. iii., p. 215 (3rd edition).

south before really hard weather sets in. I own I was very much surprised to hear that every spring this colony of the Mute Swan is invariably joined by some members of the Hooper, for Selby distinctly says they refuse to associate with one another.* This year only two Hoopers appeared, but they were remarkably fine birds. Possibly the exceptional mildness of last winter may account for the paucity of numbers, for usually the visitants come in very much stronger force. They do not, however, stay long, but within a few weeks of their arrival take their departure, and are seen no more till the following season. That the Mute Swan and the Hooper are distinct species there is no need for me to affirm here; for, not to mention the well-known difference in the colouring of their respective beaks, the difference in note,† but, above all, the difference in anatomical structure, more particularly as regards the trachea or windpipe, are sufficiently distinguishing characteristics.

Asked whether Lord Ilchester ever used them for the table, our informant said that about two hundred young birds were then in course of fattening. The process pursued is to take the cygnets from the nest just before they would naturally leave it; to place them in fresh-water ponds of small size, surrounded with high wattled hurdles, the ponds being so small that they have no room to take flight; to associate twenty cygnets in such a pond with one old Swan as a nurse; and to feed them with barley and barley-meal till they are ready for the table. To my enquiries whether the keeper did not often have violent altercations with the old birds while engaged in thus kidnapping the young, he said that the parents, and especially the old males, would show great fight and make desperate attempts to defend their young. They would come at him, he said, with wings and beak; but he never troubled about the beak; all he aimed at was to seize them by the wings and hold them tight, for they would otherwise strike very hard. The old popular notion that the stroke of a Swan's wing will break a man's arm is a delusion and a manifest exaggeration; but although long ago pointed out as such by Colonel Montagu, in the Supplement to his 'Ornithological Dictionary,' like most other popular sayings, it has continued to flourish to this day.

* 'Illustrations of British Ornithology,' vol. ii., p. 283.

† "Hocper," or "Whooper," from the note resembling the sound of the word "Hoop." See Yarrell's 'British Birds,' vol. iii., p. 192 (3rd edition).

What the flavour of a cygnet may be I cannot say, having never tried it; but if it has the slightest resemblance to that of the adult Hooper,—which I was once rash enough to taste, after I had divested it of its skin, on the coast of Norfolk,—I should say it was anything but the *Kung's-mat*, or “King’s food,” as the Swedish peasants are wont to describe it. It is, however, to be remembered that as the Swan subsists almost entirely on aquatic plants,—and never, as some people imagine, on fish,—the flesh has not the slightest oily taste, so that it may be palatable to some, for “*de gustibus non est disputandum*.” Coarse, however, in flavour, and black in colour, as my experience leads me to describe it, I cannot conceive that any amount of fattening, or any culinary skill, could make it worth the four guineas generally supposed to be its cost, according to the following scale:—

For the lean Swan	One Guinea.
Fatting the Swan	One Guinea.
Dressing the Swan	One Guinea.
Cook’s customary fee	One Guinea.*

It must at the same time be confessed that it was of old considered a “lordly dish,” and figures as a very highly esteemed item in bills of fare of the sixteenth century; indeed no great feast was considered complete without it.

Before we left the Swannery, our guide showed us, within the same precincts, a decoy for Ducks hard by. There were the tame Ducks, which would come to his whistle, swimming about in the Fleet outside; there were the wattled fences which screened him from view of the incoming wild Ducks; there were the openings at which he showed himself when he would drive the birds up, now well within the channel; there was the point where the dog was sent in to decoy them on; and there was the gradually decreasing channel up which they were driven till they reached the fatal bag-net at the end; all in exact conformity with Yarrell’s well-known illustration. But few Ducks are caught here now; they are mostly reserved for shooting. Asked as to the average number of Ducks thus caught in the winter, he said ten or twelve at a time was a very good catch, and two hundred in the course of the winter a very fair tale of Ducks. From which I concluded that although the Swannery is undoubtedly the largest in the

* ‘The Zoologist’ for 1846, p. 1250.

Kingdom, the decoy for Ducks must, I should think, be amongst the smallest, for what would a Norfolk or Lincoln decoyman say to these insignificant results?

To revert to the Swans. Though their number is said to be sadly diminished, a flock of seven hundred of these noble birds is still a goodly colony. Indeed I know not where else in England such a sight may be seen. Lloyd, in his 'Scandinavian Adventures' (vol. ii., p. 431), speaking of the Hooper, says that astounding numbers sometimes pass the winter off the western coast of Sweden, and that Mr. Richard Dann once counted, in Kongsbacka fjord alone, upwards of five hundred birds. He adds that at the breeding season, when the ice disappears, it is the habit of the Hoopers to separate in pairs, and retire to the more sequestered of the mountain lakes and morasses.* The same graphic writer also gives a very spirited account of the annual battue of the Mute Swan, which takes place in Sweden when the birds are in moult, and therefore unable to take wing and escape; and he calls attention to the magnificent sight of a thousand or twelve hundred Swans congregated in one spot, when these Swan hunts take place, and declares that though at an English battue we may "justly pride ourselves on a *bouquet* or rush of Pheasants, yet beautiful a sight as it is to see a hundred or two of these splendid birds on the wing at once, the Swans collected at a Swan hunt carry away the palm." It is this magnificent sight, on a somewhat smaller scale, and without the butchery and bloodshed, which may be enjoyed by the visitor to Abbotsbury. He need not journey to Sweden, or to Northern Asia, Eastern Russia, Siberia, or the Caspian Sea, where the true home of the Mute Swan seems to lay; but in a retired peaceful estuary on the southern coast of England, and within an easy drive of one of our favourite watering-places, he may see a Swannery of no mean dimensions, which can scarcely fail to interest the least observant.

* For an accurate account of the breeding of *Cygnus musicus* and *C. Bewickii*, see Messrs. Seebohm and Harvie Brown on the "Birds of the Lower Petchora," 'Ibis' for 1876 (3rd series, vol. vi., pp. 437—441).

SPRING MIGRATION OF BIRDS ON THE EAST COAST.

BY JOHN CORDEAUX.

Mr. Gätke, writing from Heligoland, February 8th, says, "Sky Larks for about five days commenced going eastward, and so did a few Blackbirds. If open weather continues the Pied Wagtail and Stonechat will be the harbingers of the approaching spring." With us in North-East Lincolnshire Blackbirds and Thrushes were in full song by the 14th of February, and building. The first Stonechat appeared on the 24th; * wind S.W. and strong. Up to the 25th the weather was remarkably fine and open—showers and warm sunny days like April. On the 26th there was a very sudden change to frost and snow. On the night of the 27th the thermometer registered 15° of frost.

Pied Wagtails did not arrive in any numbers previous to the 22nd March, coming in small companies, quickly moving forward, and others taking their place. By this date all appeared to have assumed the black chin and throat. On the 23rd there were enormous flocks of Golden Plovers, Fieldfares, and some Hooded Crows in the Humber marshes, evidently congregating for a general move northward. On the same day I was pleased to see a pair of the common Pochard, *Fuligula ferina* (Linn.), on a sheet of artificial water in this neighbourhood—a place, from its being closely preserved, admirably adapted for a nesting haunt. On the 26th I saw as many as a dozen Hooded Crows together feeding on fish-offal close to the town of Grimsby; a few, however, lingered about the marshes a month later, till the 26th April, on which day I surprised three on the carcass of a dead sheep, so gorged that they could barely rise from their putrid feast.

On the 27th March we found the first nest of the Long-eared Owl, with five eggs. The Owls had utilized an old Magpie's nest in a larch; the dome was removed and the platform covered with straw. Last season, when occupied by the Magpies, it had been lined, as is invariably the case, with very fine roots.

* I have strong reasons for supposing that the particular line of migration of the Stonechat is one across the usual routes of birds moving north and south, and that in the early spring months those of this species arriving on our eastern seaboard come from the continent of Europe, almost directly east and west across the North Sea. See a paper, "On the Migration of the Stonechat," in the 'Transactions of the Norfolk and Norwich Naturalists' Society' for 1877, p. 264.

Although Blackbirds and Thrushes had commenced building on Valentine's Day, we found no eggs before quite the end of March. On the 30th a Blackbird's nest in the garden contained two eggs; on the same day a Mistletoe Thrush's, two eggs; and on April 1st a Thrush's, three eggs—pale blue without spots.

The larch this year was unusually forward, being in flower on April 1st. The first Willow Wren was seen on the 2nd; the song was not heard before the 7th. On the 2nd also a Wheatear was seen—a fine old male in full plumage. Young Rooks were calling in the nest on the 3rd, and a Robin's nest contained two eggs; the eggs also of the Long-eared Owl were hatched off.

On April 12th, the average time of arrival,—wind N., very dry and cold,—two Swallows appeared; also the first Tree Pipit was seen, but its song was not heard before the 24th, twelve days later. My impression is that the males of this species, also the male Willow Wrens, precede the females by some days; we do not hear their notes, however, before their mates arrive. On the 14th I saw a second pair of Swallows, but—so cold and inclement was the weather—only a single bird between this and the end of the month. At the time the Swallows arrived there were hundreds of Fieldfares still lingering about the coast hedges.

On the 17th April, during a very heavy easterly gale, I saw the first Redstart, and for the next three or four weeks a remarkable number of these birds appeared to pass through the district—in every case females or the young of the preceding year; not a single old male did I see throughout the season. On the 19th the Yellow Wagtail was numerous, and I saw a single and exceedingly beautiful example of the *Motacilla alba* of Linnæus. On the 23rd, after very heavy rain on the night of the 22nd (wind S.S.W.), two male Blackcaps came into the garden;* at the same time a fine old male Whinchat was seen. On the 22nd also, nests of the Kestrel, Carrion Crow and Lapwing contained their full complement of eggs. After this gale and rain also unusually large numbers of Wheatears appeared in the coast marshes, males and females together, but the males, without exception, were still wearing their russet-brown mantles. The Cuckoo was seen and heard on the 25th; and the 30th—wind N.E. and still excessively cold—brought the common Whitethroat.

* I suspect the Blackcap nested in this parish last summer, for on the 3rd July I saw a female bird of this species in one of the plantations.

May came in with a bitter east wind. On the 1st the Sedge Warbler was heard and seen, and the 2nd brought Swallows, "not single spies, but in battalions." On this day I observed a flock of about fifty Knots on the foreshore, and could perceive no sign of any change of dress from the ordinary sober gray of winter. The House Martin came on the 6th, and on the 8th I saw a very considerable flock of Fieldfares; wind E.N.E. and very cold. The only Lesser Whitethroat seen by me this season was, on the 12th, actively engaged searching for food on the branch of a pear tree trained on the side of the house. I watched the little fellow for some minutes at the distance of only a few feet. On the 14th—wind north, dull and cold—the Spotted Flycatcher and Swift were seen. The Garden Warblers were unusually late, none being heard here before the 17th.

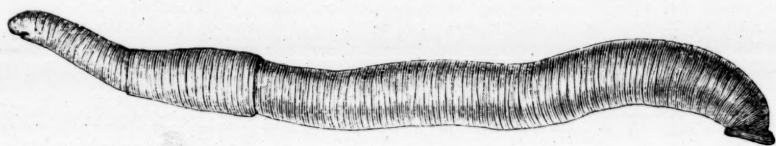
On May 26th I saw a pair of Turtle Doves perched together on a tree by the roadside near Riby, Colonel Tomline's Lincolnshire seat, a locality where they now regularly nest. On the 29th a flock of fifteen Turnstones were foraging amongst the bladder-wrack on the Humber embankment. Whimbrel never visited us in less numbers, and a small flock of eight were all I saw during the month.

The nest of a Sedge Warbler on June 2nd contained two eggs. The Reed Warblers, however, which I first found nesting in our north-east marsh district in 1876, only returned to their nesting haunts on the 14th June, at which time the autumn-mown reeds in the drains were sufficiently advanced to enable them to commence building.

I have commenced these notes with an extract from a letter of Mr. Gätke's. I will conclude them in the same manner. On June 5th he writes, "Two days ago an *Emberiza melanocephala*, a male of last autumn changing for summer dress *without* moult, was killed here, and is a very interesting catch."

ON THE OCCURRENCE IN ENGLAND OF DUTROCHET'S
LAND LEECH, *TROCHETIA SUBVIRIDIS*.

BY THE EDITOR.



IN the "Editor's Address," with which the first number of the present series of 'The Zoologist' commenced, allusion was made to the discovery, a few years ago, of the local occurrence in England of Dutrochet's Land Leech, *Trochetia subviridis*. I had hoped that the remarks then made would have elicited from some correspondent an account of this little-known annelid, and of the circumstances under which it has come to be regarded as indigenous to this country. In this, however, I have been disappointed, and nearly a twelvemonth having elapsed without receipt of any communication (except a brief note from Dr. Murie), it occurs to me to offer the following remarks, in the hope that their perusal may elicit some information on a subject which certainly deserves further investigation, and upon which at present comparatively little is known.

Trochetia subviridis was first noticed by Dutrochet, in 1817, from specimens obtained near Chateau-Renaud, in the Department d'Indre et Loire, where it was stated at that time to be tolerably common.* He has described it as resembling a Leech in appearance, horizontally flattened like one, and similarly provided with a contractile disc at the posterior extremity; but differing from it in wanting the three teeth, with which leeches puncture the skin of their prey, and in possessing, on the anterior third of the body, an annular enlargement or swelling (*renflement*), analogous to what is seen in the common earthworm.

The length of this annelid varies considerably, individuals having been met with which measured from two to six inches.

The colour in general is greyish green, somewhat lighter beneath, as well as on the annular enlargement, while on the back are two longitudinal and parallel brown lines, scarcely noticeable at first, but which become more perceptible on immersion in alcohol, when the whole body, with the exception of these two lines, turns to a dull leaden colour above, and a pale clay-colour beneath. The late Dr. Baird, of the British Museum, on making this experiment with some British specimens, found that the colour left the leeches and imparted itself to the spirit, which became of a fine green hue.

The mouth is large and bilabiate, the upper lip being somewhat larger than the under one, and according to Dutrochet—and after him Lamarck†—there are neither teeth nor eyes. But upon the question of the presence or absence of teeth and eyes later authorities differ, as I shall presently point out.

The excretory orifice, which is large as compared with what obtains in the true leeches, is situated on the median dorsal line, a little above the posterior disc; the genital organs are placed beneath, in the middle of the annular enlargement.

But it is in its internal anatomy especially that this animal differs from the true leeches.

The alimentary system consists—1st, of a long smooth œsophagus, disposed in longitudinal folds; 2nd, a stomach of which the lining membrane is villous and of a greyish colour; 3rd, the intestine shorter than, and as large as, the stomach, with the lining membrane of a fine yellow colour, a valve separating it from the

* Dutrochet, "Note sur une Annélide d'un genre nouveau"; 'Bulletin des Sciences par la Société Philomatique de Paris,' 1817, p. 130.

† 'Hist. Nat. des Anim. sans Vertèbres,' 2nd. ed., 1838, vol. v., p. 522.

stomach which precedes it, and from the rectum which follows it; 4th, the rectum, of which the lining membrane is reddish, communicating with the excretory orifice.

The alimentary canal is quite straight. The heart, like the blood-vessels, is filled with red blood, and the annular swelling—in the middle of which the heart is situated—receives a great number of these vessels. This led Dutrochet to regard it as an organ of respiration, akin to lungs. He could discover no trace of those little pouches which, to the number of nine on each side, are found in the Medicinal Leech, *Hirudo medicinalis*.*

With regard to the habits of *Trochetia*, Dutrochet states that it does not live in the water, but on moist soil, where it pursues earthworms, on which it preys, and which it swallows piecemeal (*par tronçons*).† When placed in water he found that it died in three or four days—a statement, however, which has received some modification at the hands of later observers. On the whole Dutrochet considered that the annelid in question constitutes a genus intermediate between the Earthworms and the Leeches, but nearer to the latter than to the former.

The few authors who immediately succeeded Dutrochet in noticing this annelid, as Lamarck and De Blainville, apparently added little or nothing from their own observation to what had previously been made known concerning it. Lamarck corrected Dutrochet's generic name from *Trocheta* to *Trochetia*,‡ and after pointing out that the genus is distinguished from *Hirudo* by having the mouth bilabiate, and possessing neither teeth nor eyes, he gives the following salient characters:—"Body long, cylindrical, anteriorly larger, and somewhat flattened posteriorly, and

* Leeches have no special organ of respiration, the function being performed by the entire skin, and the organ in *Hirudo*, *Aulastoma* and *Hæmopsis*, which Lamarck and others thought were two rows of respiratory pouches, and which are absent in *Trochetia*, are apparently only reservoirs of mucus, perhaps for lubricating the skin.

† Other observers have remarked that, like *Aulastoma*, it swallows the worm whole. On examining one of two specimens which Professor Garrod found in the Regent's Park and kindly submitted to me, I drew from its mouth a portion of a small earthworm, which measured fully an inch in length.

‡ Agassiz, in his 'Nomenclator Zoologicus,' gives the derivation of this word as τροχος = *discus*, a plausible but erroneous idea, for it is evident that the genus was intended to be named after its author, but the termination was incorrectly formed by him. Moquin Tandon, however, retains the original spelling, as also does Diessing, in his 'Systema Helminthum,' vol. i., p. 459 (1850), and Johnston, Cat. Brit. Non-parasitical Worms in Brit. Mus., p. 45 (1865).

terminated at the posterior extremity by a contractile disc. An encircling ring, large and slightly elevated, on the anterior third of the body. Mouth bilabiate, upper lip larger and obtuse. No teeth or jaws. No eyes. Anal aperture on the upper surface of the body, near the posterior disc.*

In the 'Dictionnaire des Sciences Naturelles,' vol. xlvii. (1827), under the heading "*Sangsue*," De Blainville has given (pp. 205—273) a very full account of the Leech family, dealing in detail with the anatomy, physiology, and natural history of all the species then known. He gives the length of the body in *Trochetia* (p. 244) as two or three inches, and describes the colour as green above, yellowish beneath, adding that the number of articulations in the body is very considerable. In the accompanying volume of plates† a figure of this species is given under the name *Geobdella Trochetii*, De Blainville.

But it is to the elaborate and more recently published work of Moquin Tandon‡ that we must turn for fuller and more accurate information concerning this little-known annelid. In several important particulars he controverts the statements of his predecessors. For instance, in regard to the alleged non-existence of eyes, he says there are eight—not very apparent at first sight, he admits, but nevertheless discoverable on examination. Four are disposed anteriorly, in the form of a crescent, on the first segment, and four are ranged posteriorly on either side of the third segment in lateral and transverse lines. With regard to teeth, which it had been stated did not exist, M. Moquin Tandon discovered that there are three. To quote his words accurately, however, he designates them "jaws,"§ and thus describes them:—"Machoires, 3, égales, très petits, demioyales, très comprimées, sans denticules, tranchantes." These are figured on plate iv. of the atlas of plates, figs. 10 and 11; but the representation there given does not quite accord with the description in the text, the shape of the teeth as figured being sub-triangular and slightly hooked, rather than semi-oval. They are smaller and not serrated as in other genera.

The Rev. W. Houghton, who has paid some attention to the

* 'Hist. Nat. des Anim. sans Vertèbres,' 2nd ed., vol. v., p. 522.

† 'Planches; Vers et Zoophytes,' fig. 6.

‡ 'Monographie de la famille des Hirudinées,' nouvelle édition, revue et augmentée, accompagnée d'un Atlas de 14 planches gravées et coloriées. Paris, 1846.

§ So also Diessing (l.c.), "*maxillius internis tribus*." Dutrochet, referring to their presence in other leeches, calls them "tongues" (*langues*).

Leech family, failed to detect these teeth;* but, as Mr. Jabez Hogg has observed,† they are so exceedingly small, when compared with the size of the animal, that they can only be got out with some difficulty, and by a careful dissection. The parts then require to be soaked and prepared in the usual way for mounting in balsam, to render them sufficiently transparent for a power of 150 diameters and upwards. Referring to Moquin Tandon's figure, Mr. Hogg characterizes it as "very inferior; the mouth, jaws, and teeth very much more resembling those of the *Echini* than of the ordinary leech." "The teeth," he adds, "are placed in a triangular form and are hooked and very acute, for grasping and bruising."

Moquin Tandon's observations of *Trochetia* lead him to believe that it is only semi-terrestrial in its habits, for he succeeded in keeping specimens in water for a fortnight in good health. It is to be found, he says, in little rivulets and gutters in the fields, whence it comes forth occasionally to prey on earthworms, in pursuit of which it is almost as voracious as *Aulastoma*.‡

In regard to its reproduction it is not hermaphrodite, as some leeches are said to be, but individuals of both sexes are found. The female is oviparous, and forms, in a moist tunnel in the ground, a small capsule or cocoon containing numerous ovules, from which the embryo leeches are usually hatched at the end of forty days. The young leech is white when first hatched, and does not begin to acquire colour until some hours afterwards. The perfect colouring is not attained for two years. Its first food consists of the mucous matters which cover the leaves of aquatic plants; afterwards, when its mouth has become more developed, it feeds on the larvæ of insects and other small animals.§

The colour of *Trochetia* seems to vary in individuals, the normal coloration being a dull greyish green, with two longitudinal dorsal stripes of a brownish shade. Moquin Tandon describes five other varieties under the names *rufescens*, *nigricans*, *brunnea*, *rubella*, and *carnea*, which sufficiently indicate their prevailing tints.

* 'Land and Water,' 13th March, 1869.

+ Id., 17th April, 1869.

‡ A species of Leech also semi-terrestrial in its habits, coming out of the water and hiding under stones on the margins of pools and ponds. It preys largely on worms, and can swallow one whole, seizing it by the middle and gulping it down with the two halves close together. It frequently, however, cuts them in pieces first.

§ See Fermond, "Sur la Conservation et la Réproduction des Sangsues," 'Comptes Rendus,' tome xxxii., p. 719; and Robin's important work, 'Sur le Développement Embryogénique des Hirudinéés,' 4to, Paris, 1875.

The localities for *Trochetia* named by Moquin Tandon are Chateau-Renaud (Indre et Loire), the neighbourhood of Toulouse, near St. Girons (Ariège), near Lanquais (Dordogne), and the environs of Algiers.

To these may now be added certain localities in England. In 1850 Mr. Hoffman found, in the neighbourhood of the Regent's Park, a large Leech, which the late Dr. Gray identified with the present species, and described as being new to the British fauna.* A few years later—namely, in July, 1865—Dr. Murie, while engaged on a *post mortem* examination of a Moluccan deer, which had died in the Gardens of the Zoological Society, found amongst the viscera a Leech of such dimensions as to excite the astonishment of those present. Unfortunately the viscera were somewhat disturbed and confused when the Leech was first observed, so that it was difficult to say whether it was attached to the stomach, to the intestines, or to the organs of the chest. It was at first supposed to be an unusually large Horse Leech, *Hæmopis sanguisuga*, which might have been accidentally swallowed by the deer while drinking; but upon further examination Dr. Murie came to the conclusion that it was *Trochetia subviridis*. In a communication on the subject which he subsequently made to the Zoological Society,† he expressed some doubt as to its being indigenous to the British Islands, and inclined to the belief that the specimen obtained might have been accidentally imported to this country by the medium of some large animal.

A few years later, when the acquisition of fresh specimens from a new locality gave rise to a renewed discussion on the subject in the Natural-History columns of 'Land and Water,' Mr. Henry Lee, who took a lively interest in the matter, and to whom naturalists are indebted for eliciting the facts in connection with the re-discovery of this Leech in England, published a letter‡ which he had received from the late Dr. Baird, of the British Museum, a well-known authority on *Annelides*, in which the following passage occurs:—"The specimen sent some few years ago by Mr. Bartlett from the Zoological Gardens is a true *Trochetia*;§ but the one

* 'Proceedings of the Zoological Society,' 1850, p. 52. This specimen is preserved in the British Museum, and is referred to in the 'Catalogue of Non-parasitical Worms,' 1865, p. 45, where it is stated to have been seven inches in length when fresh, and six inches after having been preserved in spirits.

† Proc. Zool. Soc., 1865, p. 659.

‡ 'Land and Water,' 13th March, 1869.

§ That is, Mr. Hoffman's specimen.

brought by Dr. Murie, which he described in the Zoological 'Proceedings' as *Trochetia subviridis*, is not a *Trochetia* at all, but must belong, from the structure of the oral, and especially the ventral, sucker, either to a peculiar species of *Hæmopsis* or to a new genus not hitherto described. I thought at the time when Dr. Murie brought the specimen here that it might belong to the genus *Trochetia*, but now I find it does not."

Shortly before the date of this letter—namely, in February, 1869—several specimens of *Trochetia subviridis*, taken in the garden of Mr. Broadwood, at Lyne, between Dorking and Horsham, were forwarded by a friend of his—Mr. George Rooper, of Nascott House, Watford—to the Editor of 'Land and Water' for identification. In a note which accompanied the specimens, Mr. Rooper referred to them as "frequenting gravel walks and grass plots, on which—during the night principally—they seek their food, consisting, as far as I know, exclusively of their cousins the, earthworms. These they seize, and, as a general rule, without reference to their relative size, swallow whole. I am assured that a leech will swallow a worm *bigger* than itself! After their meal, like the snakes, they fall into a lethargic slumber, which lasts for days or weeks, until the two bodies are assimilated, to the manifest advantage of one—the leech."

To this letter, which was published, under the initials "G. R.," in the Natural-History columns of 'Land and Water' (20th February, 1869), Mr. Henry Lee appended a note in which he identified the species and pointed out some of its characters.

This announcement elicited an interesting communication from the Rev. W. Houghton,* to which reference has already been made, and a month later—namely, on the 20th March, 1869—there appeared in the same journal a letter from Mr. Broadwood, in which, after remarking that it was he who had supplied Mr. Rooper with the specimens forwarded to the Editor of 'Land and Water' for examination, stated that he had for many years observed these annelids on the lawn and paths of his garden, and that on the 18th of the previous month of January a young friend who had taken some specimens with him to Cambridge wrote to him that he had identified them with *Trochetia subviridis*.

It would appear from a note by the late Mr. Gedge (Assistant Demonstrator of Anatomy at Cambridge) published in 'The Annals

* See 'Land and Water,' 27th February, 1869.

and Magazine of Natural History' for May, 1869,* that the friend referred to by Mr. Broadwood was Mr. Marlborough Pryor, of Trinity College, Cambridge.

I have been thus careful to give the dates of the various communications on the subject which have been published, because there appeared to be some doubt as to whom the credit of rediscovering this annelid in England belonged.

The soil upon which the specimens in question were found is described by Mr. Broadwood as the hardest wealden clay, and though very deep, it is so close that every hole and crack holds water, and it is a long time before the rain becomes absorbed.

At a meeting of the Croydon Microscopical Club, held on the 16th November, 1870, the President, Mr. Henry Lee, announced his discovery, three weeks previously, of a new locality for *Trochetia subviridis*,—namely, on the Beddington Sewage-irrigation Farm of the town of Croydon,—and stated that he was informed that it was also to be found on the other irrigation-land belonging to that town at Norwood. He had found it “in about six inches of water at the bottom of the great ditch which conveys the Croydon sewage on to the estate before it flows over the land, and for three weeks it had lived and thriven in a bowl of water with two minnows.” Three months after this report,† it was still alive and in good condition, having been kept in water all the time in Mr. Woodward's room at the British Museum.

Mr. Henry Lee was informed by another correspondent that he had heard of these leeches in Hants, and one of his own relatives assured him, in 1869, that at Lindfield, in Sussex, about five and twenty years previously, Land Leeches were so abundant in the fields and on the footpaths through them, that the ladies of the family who resided there avoided them in their evening walks.

Mr. Marlborough Pryor has recently been good enough to inform me that in November, 1876, he found a specimen of *Trochetia subviridis* at Elstree, in Hertfordshire. As in the case of the Sussex specimens, it was found upon a stiff clay soil.

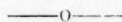
In conclusion, I may state that I have lately been favoured by Professor Garrod with two specimens of a Land Leech which, some months since, he found with some others on a moist foot-

* Ann. & Mag. Nat. Hist., 4th Series, vol. iii., p. 369.

† ‘First Report and Abstract of Proceedings of the Croydon Microscopical Club,’ 1871, pp. 22, 23.

path in the Zoological Society's Gardens, Regent's Park. These appear to me to possess all the characters assigned to the species now under consideration, although I have not yet had an opportunity of examining them under the microscope, and satisfactorily determining the presence or absence of teeth.

The occurrence, then, of this annelid in England having been placed beyond doubt, it is to be hoped that observers in different parts of the country will look out for it, investigate its habits, and forward for publication the results of their researches. Worms and leeches with most people are not especial favourites; but, under the present aspects of science, they are of more than usual interest, particularly as regards their habits and modes of development.



OCCASIONAL NOTES.

MR. WHARTON'S 'LIST OF BRITISH BIRDS.'—In 'The Zoologist' for October (pp. 458 *seqq.*) you published a review of my 'List of British Birds.' With your kind permission, I desire to make a few remarks in reply. In the first place, your reviewer finds difficulties in regard to Sundevall's system, which a reference to his 'Tentamen' would have easily dispelled; most of the objections that he raises are inseparable from a simply linear arrangement. But when objection is taken to my definition of a British bird, I must answer that I aimed at making, not a Census, but a List. It is not to such a mere enumeration as mine that a zoological geographer appeals when he wants to know what species are really indigenous or natural to any given country. But surely it does throw light on a fauna to have on record even the isolated occurrence of the most alien species, thus showing not only its resources as a metropolis, but also every form which it is capable of associating to itself. Your reviewer not unjustly dreads an undue multiplication of genera, but the retention of the Serin in the genus *Fringilla* is rendered impossible by the acceptance of Sundevall's method; he places the one in the family *Chloridina*, characterized among other particulars by the absence of vibrissæ, and the other in the family *Fringillina*, where the vibrissæ are evident. And surely the separation of *Helodromas* from the *Totani* requires no apology when, as pointed out by your reviewer, it depends upon an obvious osteological difference, which similarity of external circumstances shows no tendency to obliterate. The inconsistencies of terminations to which your reviewer alludes depend on a simple question of grammar. *Phenicurus* and *rubecula* are substantives standing in apposition to their respective generic names;

arundinaceus and *streperus* are adjectives. The British form of *Parus ater*, L., and *Acredula caudata* (L.) I have not recognized, because in such a matter I am content to accept the conclusions of Professor Newton, as given in his revision of Yarrell's standard work. The authority of Brehm for *Regulus ignicapillus* rests on the statement of Temminck, in his 'Manuel' published in 1820. Jenyns certainly, in the work quoted by your reviewer, wrote "nob." after the name in 1835: but as he quotes Temminck's long previous usage of the same name, he was probably merely alluding to himself as having been the first to identify the bird in this country in 1832. On the testimony of Mr. Dresser ('Birds of Europe,' parts 47 and 48) and Professor Newton, Tunstall in 1771 did forestall Gmelin's description of *Falco peregrinus* in 1788. In 'The Ibis' for last July (p. 332) the reviewer will find that Mr. J. H. Gurney has satisfied himself that the two Spotted Eagles killed in Cornwall were both of them examples, not of *Aquila navia* (Gm.), but of *Aquila clanga* (Pallas). Mr. Howard Saunders has given satisfactory reasons (Proc. Zool. Soc. 1876) why the name *Sterna macrura*, Naumann, should take precedence of *Sterna hirundo*, L. In Mr. Dresser's 'Birds of Europe,' parts 59 and 60, it is shown that Brünnich's Guillemot cannot be called *Alca arra*, for under that name Pallas referred to a totally distinct species. In thus replying to the invitation of my reviewer, I cannot in courtesy conclude without expressing my thanks to him for pointing out the mistaken admission of *Ereunetes pusillus* (L.). The species should indeed rightly have appeared as *Tringa minutilla*, Vieillot (1819); for it may be observed that Wilson's name *pusilla* (1813) cannot stand, on account of its previous application by Linnæus to a species since shown to be distinct.—HENRY T. WHARTON.

GREEN SANDPIPER IN THE CO. MAYO.—On the 30th September a Green Sandpiper appeared here, and took up its quarters at a little pool close to the shore. I made several unsuccessful attempts to shoot it; but, owing to its wildness, I was unable to do so until the 4th October. It proved to be a young bird, probably on its southward migration. The little pool is about thirty yards in length by six or eight in width, and is separated by a wall from the shores of the Estuary. On the other side it is surrounded by low trees; having a few yards of flat grassy bank between the water and trees. It appears to have some special attraction for Green Sandpipers, for the only birds of that species obtained or seen in this district were all observed at the same spot. The first Green Sandpiper I ever met with I shot there on the 12th January, 1866; and on the 25th August, 1873, my friend Mr. A. G. More saw a pair there, one of which he shot. The bird above mentioned as having been obtained on the 4th of last October makes the fourth seen here and the third specimen obtained. The extreme quickness of sight and wild flight are well and graphically described by Mr. Harvie Brown in his notice of the Green Sandpiper in Stirlingshire

(p. 441), and I can well imagine his difficulty in obtaining a fair shot when the bird was flying amongst trees after being disturbed or alarmed. Of all our waders the Spotted Redshank is the only one that at all equals the Green Sandpiper in quickness of sight, while it surpasses it in wildness of flight, as any one who has followed either bird along the shore can testify.—ROBERT WARREN (Moyview, Ballina, Co. Mayo).

HOOPOE IN IRELAND.—It may interest some of your readers to learn that a Hoopoe was shot by Mr. Martin, of Knox's Street, Sligo, some time in September, as it rose from amongst the bent in the sand-hills of Sligo Bay.—ID.

SPOONBILLS AND CANADA GEESE IN SUFFOLK.—Two Spoonbills, both males, were shot at Aldborough on the 27th June, presumed to be of the same flock as that mentioned by me in 'The Zoologist' for August last (p. 343). On the same day four Canada Geese were seen at Harwich; on the day following one was shot at Aldborough, and a few days later one at Felixstow. Is it probable that these are the same Geese that are recorded in 'The Zoologist' for July (p. 300), as having been seen by Mr. A. B. Brooke at Butterstone Loch? It is singular that there were four in each case.—F. KERRY (Harwich).

SCAUP DUCK AT SCILLY.—Although we have had no weather to bring wild-fowl down west, and have not heard of any but a few scattered ones of our commoner species, Mr. Smith sent over the other day, for preservation, a good adult female specimen of the Scaup Duck from Scilly. The Scaup is a rare visitor with us, and its occurrence is worth noting.—E. H. RODD (Penzance, Nov. 3rd).

DEATH OF MR. ROBERT SWINHOE, F.R.S.—Our readers will hear with regret of the death, on October 28th, of Mr. Robert Swinhoe, F.R.S., late of Her Majesty's Consular Service in China. His name will be familiar to many as that of a naturalist who for several years past has devoted all his leisure time in investigating the Natural History, and more particularly the Ornithology, of China and parts of Japan, and in publishing through various channels the results of his researches. His earliest publication on the subject appeared in 'The Zoologist' for 1858, in which volume will be found (p. 6222) an article entitled "Remarks on the Fauna of Amoy." In successive volumes of this journal appeared other papers from his pen, on the small Chinese Lark, *Alauda calivox* (1859, p. 6723), on the Wild Swans of China (1860, p. 6923), and on the Birds of Amoy (1860, p. 7102). After this date his contributions to Ornithology appeared chiefly in 'The Ibis' and in the 'Proceedings of the Zoological Society,' to both of which publications he became a frequent contributor. In 1863 he published, in the 'Proceedings of the Zoological Society,' a "Catalogue of the Birds of China," and in the same journal his 'Revised Catalogue' appeared in 1871.

The latter publication, embodying numerous additions to the list of Chinese birds, and several new species which had been described by the author since the date of his first Catalogue, may be regarded as the most reliable source of information at the present time on the Ornithology of a country still very imperfectly known to European naturalists. In 1870 he contributed to the Natural-History columns of 'The Field' an interesting series of articles on the Natural History of Hainan. Mr. Swinhoe's official position in China enabled him from time to time to arrange for the capture and transmission to England of many rare and valuable animals for the Zoological Society's Gardens, and he never lost an opportunity of furthering the interests of the Society of which he was so distinguished a member. His successful efforts in regard to the importation of several rare species of *Phasianidae*, the most beautiful of all the game birds, may be especially called to mind. One of these, from the island of Formosa, has been described and named after him by Mr. Gould. It was much to be deplored that a naturalist of such talent and energy of mind was not equally gifted with physical strength to carry out his enthusiastic aspirations. Unfortunately, an attack of paralysis contracted in China necessitated his return to England, and for a considerable time before his death, his state of health was such as to cause great anxiety to his family and friends. His patience and cheerfulness while prostrated by this affliction were remarked by all who knew him, and it was fortunate for him that his favourite study furnished him with a constant occupation for the mind, which to some extent agreeably distracted his thoughts from his physical suffering. At the time of his death, Mr. Swinhoe had been for some time occupied in the preparation of a large work on the birds of China, which it was intended to illustrate with coloured plates. It will be a source of disappointment to ornithologists that he has not lived to complete it.

PROCEEDINGS OF SCIENTIFIC SOCIETIES.

LINNEAN SOCIETY OF LONDON.

November 1, 1877.—Prof. ALLMAN, President, in the chair.

Messrs. S. M. Samuel and P. Wyatt Squire were duly elected Fellows of the Society.

Two zoological papers were read. The first by Capt. William E. Armit, of Dunrobin, Queensland, was a "Note on Australian Finches of the Genus *Poëphila*." Mr. Gould having treated *P. Gouldiae* and *P. mirabilis* as distinct species, and Mr. Diggles having asserted his opinion that the former was the female of the latter, Capt. Armit procured specimens and investigated the habits and change of plumage of both, the result being

that he agrees with Mr. Gould that the birds in question are distinct and well-marked species.

The second paper was on Crustaceans, by Mr. E. J. Miers, of the British Museum—"A Revision of the *Hippidea*." The determination of the species of this small and peculiar group of Anomalous Crustacea, and their identification with the brief descriptions of the earlier authors, is both difficult and uncertain. Mr. Miers gave a *resumé* of the literature on the subject, and, in opposition to the views of the American naturalist, Mr. Dana, supported the older view of the affinities of the group. He remarked that, "Although in their elongated carapace and antennæ the *Hippidea* have a considerable resemblance to certain of the *Corystoidea*, as will be seen, *e.g.* by comparing the Chilian *Blepharopoda spinimana* and *Pseudocorystes sicarius*, their true affinities are with the Oxystomatous *Brachyura*, through the *Raninida*. As regards their geographical distribution, they inhabit all the warmer temperature and tropical seas of the globe. Until recently little has been known of their life-history and habits, but Mr. S. I. Smith, of Connecticut, has lately furnished a detailed account of the development of the common species of the eastern shores of the United States. *H. talpoidea* lives gregariously, burrowing in the loose shifting sands near low-water mark. *Albunea Guérinii* and *Blepharopoda spinimana* have been obtained from deep water, the former in the Gulf of Algiers and the latter in the Bay of Valparaiso." Mr. Miers concluded by giving a descriptive list of the species of *Hippidea*, showing the geographical range of each.

A series of interesting botanical specimens were exhibited by different Fellows, and remarks made thereon:—Among others the late Mr. Hanbury's collection of Cardamoms, and a fungus in a sugar cane, by Mr. Holmes, of the Pharmaceutical Society; grape within grape, *i.e.*, adventitious fruit in place of seed, by Dr. Masters; Australian gum trees grown in this country, exhibited by Mr. Alfred O. Walker; and examples of the curious South American genus *Colletia*, by the Rev. T. H. Sotheby.

Two botanical papers were read:—One "On the Source of the Winged Cardamon of Nepal," by Dr. G. King; the other "On the Self-fertilization of Plants," by the Rev. G. Henslow, wherein the author arrives at conclusions opposed to those expressed by Mr. Charles Darwin in his well-known work on the subject.—J. MURIE.

ZOOLOGICAL SOCIETY OF LONDON.

November 6, 1877.—A. GROTE, Esq., Vice-President, in the chair.

The Secretary read a report on the additions that had been made to the Society's Menagerie during the months of June, July, August and September, 1877.

A letter was read from Mr. R. Trimen, containing remarks on the African species of *Sarcidiornis*.

A letter was read from Mr. A. O. Hume, containing some remarks on Mr. Howard Saunders' recent paper on the *Sterninae*.

The Secretary exhibited, on the part of Mr. G. Dawson Rowley, an egg of *Pauxis galeata*, laid by a black female bird of this species.

Prof. W. H. Flower read a paper entitled "A further Contribution to the knowledge of the existing Ziphioid Whales of the Genus *Mesoplodon*," containing a description of a skeleton and several skulls of Cetaceans of that genus from the seas of New Zealand.

A communication was read from Lieut.-Col. R. H. Beddome, containing the descriptions of three new species of reptiles from the Madras Presidency. It was proposed to call these *Oligodon travancoricum*, *Gymnodactylus Jeyporensis* and *Bufo travancoricus*.

A communication was read from the Marquis of Tweeddale, containing an account of a collection of birds made by Mr. A. H. Everett in the Island of Luzon, Philippines. Three new species were named *Megalurus ruficeps*, *Dicaeum xanthopygium* and *Oxyerca Everetti*.

Mr. D. G. Elliot read some remarks on *Felis tigrina* (Erx) and its synonymy, showing that *F. mitis* (F. Cuv.), and *F. macrura* (Pr. Max.), are identical with that species.

Prof. Garrod read a paper on some points in the visceral anatomy of the Rhinoceros of the Sunderbunds (*Rhinoceros sondaicus*).

A second communication from Prof. Garrod contained a note on an anatomical peculiarity in certain Storks.

Mr. Edgar A. Smith read a paper in which he described some shells from Lake Nyassa and a few marine species from the mouth of the Macusi River, near Quilimane, on the East Coast of Africa.

A communication from Dr. O. Finsch contained the description of a new species of Petrel from the Fiji Islands, which it was proposed to name *Procellaria albigularis*.

A second communication from Dr. Finsch contained a report on the collections of birds made during the voyage of H.M.S. 'Challenger' at Tongatabu, the Fiji Islands, Api, New Hebrides, and Tahiti.

Mr. E. R. Alston read a supplementary note on Rodents and Marsupials from Duke-of-York Island and New Ireland. *Macropus lugens* (Alst.) was shown to be a synonym of *Halmaturus Brownii* (Ramsay), while Mr. Ramsay's *Mus echimyoides* and *M. musavora* were respectively identical with *Mus Browni* and *Uromys rufescens* of Alston.

A communication from Mr. L. Taczanowski contained a supplementary list of birds collected in North-Western Peru by Messrs. Jelski and Stolzmann. Two species were new, and it was proposed to call them *Rallus cypereti* and *Penelope albipennis*.—P. L. SCLATER, Secretary.